

# GALTON'S HEREDITARY GENIUS\*†

*Editor's Note : The title Hereditary Genius has been much misunderstood and criticized. In the prefatory chapter of the second edition (1892) Galton wrote that he regretted the choice of title because it seemed to mislead readers and that if the title could be altered he would make it Hereditary Ability. He stated that he used the word genius "as expressing an ability that was exceptionally high and at the same time inborn."*

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**I**N the eighty-two years which have passed since the first publication of Galton's book, the science of genetics has become established, and the sciences of social anthropology, psychology, sociology and demography have provided entirely new insights for the study and understanding of man. Much of Galton's thinking reflects the insufficiency of the basic data then available. But the conclusions which Galton draws from his actual studies of British families are still fresh and unassailable and need repeating : ability runs in families ; size of family is a function of the social environment.

The basis of the modern eugenics movement is laid down in the first page of the introductory chapter :

I shall show that social agencies of an ordinary character, whose influences are little suspected, are at this moment working towards the degradation of human nature, and that others are working towards its improvement.

I conclude that each generation has enormous power over the natural gifts of those that follow, and maintain that it is a duty we owe to humanity to investigate the range of that power, and to exercise it in a way that, without being unwise with ourselves, shall be most advantageous to future inhabitants of the earth.

Birth control was not widely practised in England at the time Galton wrote *Hereditary Genius*. Age at marriage was the determining

factor in size of family, and by the standards of today families were enormous. Under the conditions then prevailing, Galton's natural and proper conclusion was that the social factors affecting age at marriage should be radically altered. How correct he was under the conditions of that time can be seen from the table on this page, the figures in which seem quite unbelievable to anyone living in a country of Western European civilization today.

With the spread of birth control and the general practice of family limitation a great number of new factors have come into play to affect size of family ; but so far as we know they are all factors which are socially determined. Galton's opening paragraph is not only still true, but truer in a larger sense than it was in his time.

In studying the survival and extinction of English peerages, Galton came upon figures

TABLE †  
PERCENTAGE-FREQUENCIES OF NUMBERS OF CHILDREN BORN TO SURVIVING COUPLES, ENGLAND AND WALES, 1911, BY DATE OF MARRIAGE, 1851 - 1871, AND BY WIFE'S MARRIAGE AGE

Wife's marriage age and date of marriage	Percentage of small and large families by number of children ever born	
	Families with five or less children	Families with six or more children
15-19		
1851-1861	22.5 per cent	77.5 per cent
20-24		
1851-1861	30.2 per cent	69.8 per cent
25-29		
1851-1861	45.1 per cent	54.9 per cent
30-34		
1861-1871	75.1 per cent	24.9 per cent
35-44		
1861-1871	92.8 per cent	7.2 per cent

† Abridged from Table XVI, Census of England and Wales, 1911, Vol. 13, p. xlii.

\* Reprinted from the *Eugenical News*, September 1951, 36, 3.

† Galton, Francis. *Hereditary Genius : An Inquiry into its Laws and Consequences*. Original edition, 1869 ; reprint with new prefatory chapter in 1892 ; reprint of 1892 edition in 1950 by Watts & Co. of London. 379 pp., 10s. 6d.

which led him to a shrewd guess about fertility which is amply confirmed by more recent studies. Galton writes: "We might indeed have expected that an heiress, who is the sole issue of a marriage, would not be so fertile as a woman who has many brothers and sisters. Comparative infertility must be hereditary in the same way as other physical attributes." Galton's studies showed that the marriage of peers to heiresses was a frequent cause of the decline or extinction of their stocks.

There is much of current interest in Galton's studies in such widely different occupational fields of Judges, Commanders, Poets, Oarsmen, and Wrestlers of the north country. Modern studies using new techniques and new approaches all tend to confirm Galton's modest statement: "What I profess to prove is this: that if two children are taken, of whom one has a parent exceptionally gifted in a high degree—say as one in 4,000, or as one in a million—and the other has not, the former child has an enormously greater chance of turning out to be gifted in a high degree, than the other." While such a view is widely accepted today, it was apparently not current in Galton's time. His half-cousin Charles Darwin wrote him, after reading *Hereditary Genius*: "You have made a convert of an opponent in one sense, for I have always maintained that, excepting fools, men did not differ much in intellect, only in zeal and hard work."

The most far-reaching and important of Galton's conclusions is one which has recently been voiced by American psychologists as a result of studies of quite a different nature from those of Galton. Galton classified

human beings into seven grades of natural ability, separated by equal intervals, and in one of his final chapters he wrote:

If we could raise the average standard of our race only one grade, what vast changes would be produced! The number of men of natural gifts increased, more than tenfold . . . , but far more important to the progress of civilization would be the increase in the yet higher orders of intellect . . . the numbers in these, the loftiest grades of intellect, would be increased in a still higher proportion than that which I have been speaking of; thus the men that now rank under class G would be increased seventeen fold, by raising the average ability of the whole nation in a single grade.

Galton refers here, of course, to a change in hereditary potential. Recent studies by psychologists point to the same conclusion. It is now generally agreed that if the average of the hereditary potential is raised by even a small amount, there is a great increase in the proportion of the gifted; whereas when the environment is improved, the proportion of the very dull is much diminished, but the proportion of the gifted increases only slightly.

Galton's concluding words take on added significance today. He wrote: "It seems to me essential to the well-being of future generations, that the average standard of ability of the present should be raised. . . . An extended civilization like ours comprises more interests than the ordinary statesman or philosophers of our present race are capable of dealing with."

FREDERICK OSBORN.